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6. GLOSSARY

Anadromous fish – Those species of fish that mature in the ocean and migrate to freshwater streams to spawn; an example is salmon.

Archaeological object – An object that comprises the physical evidence of an indigenous and subsequent culture including material remains of past human life including monuments, symbols, tools, facilities, and technological by-products (from RCW 27.53.030).

Archaeological resources – All sites, objects, structures, artifacts, implements, and locations of prehistorical or archaeological interest, whether previously recorded or still unrecognized, including, but not limited to, those pertaining to prehistoric and historic American Indian or aboriginal burials, campsites, dwellings, and habitation sites, including rock shelters and caves, their artifacts and implements of culture such as projectile points, arrowheads, skeletal remains, grave goods, basketry, pestles, mauls and grinding stones, knives, scrapers, rock carvings and paintings, and other implements and artifacts of any material that are located in, on, or under the surface of any lands or waters owned by or under the possession, custody, or control of the state of Washington or any county, city, or political subdivision of the state (from RCW 27.53.040).

Archaeological site – A geographic locality in Washington, including, but not limited to, submerged and submersible lands and the bed of the sea within the state’s jurisdiction, that contains archaeological objects (from RCW 27.53.030).

Basal area – The area in square feet of the cross-section of a tree bole measured at 4.5 feet above the ground.

Biological diversity – The relative degree of abundance of wildlife species, plant species, communities, habitats or habitat features in an area.

Blowdown – Trees felled by high winds.

Bog – A hydrologically isolated, low nutrient wetland that receives its water from precipitation only. Bogs typically have no inflow and rarely have outflows. Bogs have peat soils 16 or more inches in depth (except where over bedrock), and specifically adapted vegetation such as sphagnum moss, Labrador tea, bog laurel, sundews, and some sedges. Bogs may have an overstory of spruce, hemlock, cedar, or other tree species, and may be associated with open water.

Buffer – A forested strip left during timber harvest to conserve sensitive ecosystems or wildlife habitat, or potentially unstable slopes. Management activities may be allowed as long as they are consistent with the objectives for the buffer.

Canopy – The continuous cover of branches and foliage formed collectively by the crowns of adjacent trees and other woody growth. See also “understory canopy” and “overstory canopy.”



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Canopy closure – The degree to which the canopy (forest layers above one's head) blocks sunlight or obscures the sky. See also relative density.

Carbon sequestration – The uptake and storage of carbon. Trees and other plants, for example, absorb carbon dioxide, release the oxygen, and store the carbon.

Channel migration zone – For each of the types of streams described below, the area where the active channel of such stream is prone to move and where movement would result in a potential near-term loss of riparian forest adjacent to the stream. For purposes of this report, channel migration zones are associated with moderately confined streams, and unconfined avulsing streams.

Class IV-Special – A Washington forest practices class; forest practices that fall under SEPA (RCW 76.09.05), as they have been determined to have potential for a substantial impact on the environment, and so require an environmental checklist and additional review.

Clearcut – A harvest method in which all or almost all of the trees are removed in one cutting; an even-aged silvicultural system. Clearcutting establishes a stand without protection from an overstory canopy.

Climax – The culminating, highly stable stage in plant succession for a given environment; an ecosystem will stay at the climax stage until disturbance affects the ecosystem and the stages of ecological succession begin again.

Commercial thinning – The removal of generally merchantable trees from an even-aged stand, so that the remaining trees can develop faster and with less competition.

Competitive exclusion forest – Forested habitat characterized by a single, dense canopy layer dominated by trees between 10 and 30 inches in diameter at breast height. In younger stands, the high density and uniform size of relatively short trees allows only small amounts of sunlight to reach the forest floor, creating sparse understory conditions and low levels of biological diversity. Consists of the sapling exclusion, pole exclusion, large tree exclusion, and understory reinitiation stand development stages.

Cultural resources – Archaeological and historic sites and artifacts and traditional religious, ceremonial and social uses and activities of affected Indian tribes (from Washington Administrative Code 222-16-010).

Debris flow – A moving mass of rock, soil, debris, and mud (more than half the particles being larger than sand size) that can travel many miles down steep confined mountain channels; a form of debris torrent.

Debris slide – The very rapid and usually sudden sliding and flow of incoherent, unsorted mixtures of soil and weathered bedrock.

Debris torrent – Debris flow or dam-break flood. Rapid movement of a large quantity of materials, including wood and sediment, down a stream channel. Usually occurs in smaller streams during storms or floods, and scours the stream bed in steeper channels.



Deep-seated landslide – Landslides in which the zone of movement is mostly below the maximum rooting depth of forest trees, to depths of tens to hundreds of feet.

Diameter at breast height – The diameter of a tree, measured 4.5 feet above the ground on the uphill side of the tree.

Dispersal – The movement of juvenile, subadult, and adult animals from one sub-population to another. For juvenile spotted owls, dispersal is the process of leaving the natal territory to establish a new territory.

Dispersal habitat – Habitat used by juvenile spotted owls or by owls of any age to disperse or move from one area of nesting-roosting-foraging habitat to another. The DNR's Habitat Conservation Plan calls for dispersal habitat to be maintained on 50 percent of lands designated as dispersal management areas. DNR Procedure 14-004-120 specifies the following minimum requirements for dispersal habitat:

- a relative density of at least 50;
- a quadratic mean diameter of 11 inches on at least 100 trees; and
- at least 40 trees per acre that are at least 85 feet tall.

Dispersal management areas – Lands identified in the Habitat Conservation Plan that are managed to facilitate dispersal of spotted owls.

Ecosystem initiation forest – Forests representing the establishment of a new forest ecosystem following death or removal of overstory trees by wildfire, windstorm, insects, disease, or timber harvesting.

Edge – An abrupt change between adjacent plant communities, successional stages, or vegetative conditions.

Edge effects – The modified environmental conditions along the margins, or edges, of forest patches.

Endangered Species Act – The federal Endangered Species Act of 1973 (16 U.S.C. §1531 et. seq.), as amended, sets up processes by which plant and animal species can be designated as threatened or endangered. Two federal agencies, the U.S. Fish and Wildlife Service and National Oceanic and Atmospheric Administration – Fisheries Service, administer the Act. Once species are listed, the Act also provides that these agencies develop recovery plans for these species, including conserving the ecosystems on which listed species depend.

Environmental impact statement – A document prepared under the Washington State Environmental Policy Act to assess the impacts that a particular action or program will have on the environment.

Erosion – The removal of soil or rock material from a soil surface or area to a position where it is deposited. Erosion may be caused by a variety of factors, including but not exclusive to changes in moisture conditions, flowing water, changes in subsurface conditions that lead to gravitational instability, or wind action.



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Even-aged – A system of forest management in which stands are produced or maintained with relatively minor differences (generally less than 10 years) in age.

Evolutionarily significant units – A population that is substantially reproductively isolated from other population units of the same species, and represents an important component in the evolutionary legacy of the species.

Extirpation – The elimination of a species from a particular area.

Federally listed – Species formally listed as a threatened or endangered species under the federal Endangered Species Act; designations are made by the U.S. Fish and Wildlife Service or National Oceanic and Atmospheric Administration – Fisheries Service.

Fertilization – The act or process of applying natural and/or synthetic materials, including manure, nitrogen, phosphorous and potassium, applied to the soil to increase fertility.

Forest Practices Act – A Washington State statute (Chap. 76.09 RCW) establishing minimum standards for forest practices, and providing for necessary administrative procedures and rules applicable to activities conducted on or pertaining to forests, on both state managed and private lands.

Forest Practices Board – A Washington State agency created by the Forest Practices Act to adopt forest practices rules that protect public resources coincident with the maintenance of a viable forest products industry. These rules are administered and enforced by DNR.

Forest structure class – A way of classifying forested habitat types based on wildlife species' associations with structural characteristics such as tree size, canopy closure, and the presence and abundance of snags and down logs. Compare to stand development stages. Both are described in greater detail in Appendix B.

Geographic information system – A computer system that stores and manipulates spatial data, and can produce a variety of maps and analyses. DNR's Geographic Information System is able to: (1) assign information and attributes to polygons and lines, which represent relationships on the ground; and (2) update and retrieve inventory, mapping, and statistical information. DNR uses its Geographic Information System as one of several tools for setting landscape-level planning objectives.

Geomorphic processes – Landscape-modifying processes such as surface erosion, mass wasting, and stream flow.

Ground water – Water that is beneath the land surface. The source of seeps, springs and wells.

Growth and yield – Growth is the change in standing tree volume over time. Yield is the amount of timber harvested over time.

Habitat Conservation Plan – An implementable program for the long-term protection and benefit of a species in a defined area; required as part of a Section 10 incidental taking permit application under the federal Endangered Species Act. DNR has a Habitat Conservation Plan signed in 1996 in agreement with the U.S. Fish and Wildlife Service



and National Oceanic and Atmospheric Administration – Fisheries Service. The plan covers approximately 1.6 million acres of state trust lands managed by DNR within the range of the northern spotted owl.

Habitat preference – The choice of habitat(s) that an animal would make if all habitat types were available to it.

Harvest intensity types – A way of classifying management intensity at a particular site during a particular period, based partially on the volume of timber removed. For this analysis, harvest intensity is divided into three classes, as follows:

- **Low-volume removal harvests** (Harvest Type “A” – less than 11 thousand board feet per acre) – usually involve the removal of small diameter trees from the stand. These harvests are typically thinnings in small diameter closed stands, but may include other harvest treatment depending on the mixture of tree species, site potential and location of a stand.
- **Moderate-volume removal harvests** (Harvest Type “B” – between 11 and 20 thousand board feet per acre) – typically occur in stands of trees with large diameters. However, the category may include other harvest methods, for example variable density thinnings, patch-cutting, and clearcuts in hardwood stands. Stand regeneration may be associated with some of these harvest types.
- **High-volume removal harvests** (Harvest Type “C” – greater than 20 thousand board feet per acre) – represents the harvest design of a larger number of trees and high volume removed from the stand. Harvest methods within this category are typically associated with stand regeneration and heavy thinnings. Most common harvest methods are clearcuts, partial harvest, shelterwoods, and variable density thinnings. The precise harvest method depends on the mixture of tree species, site potential, location of the stand, and the management goals for the site.

Historic archaeological resources – Those properties which are listed in or eligible for listing in the Washington State Register of Historic Places (RCW 27.34.220) or the National Register of Historic Places as defined in the National Historic Preservation Act of 1966 (Title 1, Sec. 101, Public Law 89-665; 80 Stat. 915; 16 U.S.C. Sec. 470) as amended (from RCW 27.53.030).

Historic site – Sites, areas, and structures or other evidence of human activities illustrative of the origins, evolution and development of the nation, state or locality; or places associated with a personality important in history; or places where significant historical events are known to have occurred even though no physical evidence of the event remains (from Washington Administrative Code 222-16-010).

Hydrologic maturity – The degree to which hydrologic processes (e.g., interception, evapotranspiration, snow accumulation, snowmelt, infiltration, runoff) and outputs (e.g., water yield and peak discharge) in a particular forest stand approach those expected in a late seral stand under the same climatic and site conditions. In DNR’s Habitat



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Conservation Plan, a hydrologically mature forest, with respect to rain-on-snow runoff, is a well-stocked conifer stand 25 years or older.

Interior-core riparian buffer – Streamside buffer in the DNR’s Habitat Conservation Plan riparian strategy for the Olympic Experimental State Forest; minimizes disturbance of unstable channel banks and adjacent hillslopes, and protects and aids natural restoration of riparian processes and functions. See also buffer.

Land classification – A system developed to represent DNR policy goals and management constraints. The system classifies all lands into one of three classes based upon specific management objectives and resource sensitivity. The three classes in order of decreasing resource sensitivity and resulting management specificity are:

- Riparian and wetland areas that have very specific management objectives;
- Upland areas with specific management objectives or resource sensitivities, including areas such as unstable slopes, rain-on-snow areas, and northern spotted owl nesting, roosting, foraging, and dispersal management areas; and
- Upland areas with general management objectives, where DNR practices general ecological management, including practices such as “leave trees” and “green-up.”

Landscape – Large regional units of lands that are viewed as a mosaic of communities, or a unit of land with separate plant communities or ecosystems forming ecological units with distinguishable structure, function, geomorphology, and disturbance regimes. In the DNR’s Habitat Conservation Plan, a landscape is defined as a large area comprising various interacting patterns of stand structure and function going through alterations over time.

Landscape planning – The process of planning for a specified landscape by setting specific objectives for a given area, such as protection of wildlife and timber production.

Landscape-level planning – The process of planning across an area larger than individual stands or harvest areas.

Landslide – Any mass movement process characterized by downslope transport of soil and rock, under gravitational stress, by sliding over a discrete failure surface or the resultant landform. In forested watersheds, landsliding typically occurs when local changes in the pore-water pressure increase to a degree that the friction between particles is inadequate to hold the mass on the slope.

Large woody debris – Large pieces of wood in stream channels or on the ground, includes logs, pieces of logs, and large chunks of wood; provides streambed stability and/or habitat complexity. Also called coarse woody debris or down woody debris. Large organic debris is large woody debris, but may contain additional non-woody debris, such as animal carcasses.

Legacy tree – A tree that is retained for more than one rotation in an area actively managed for timber production.

Long-term deferrals – Areas deferred from timber harvest for an indefinite period of time.

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Low-order streams – Small streams with very few tributaries; often are headwaters. Type 4 and 5 waters are low order streams.

Mass wasting – Dislodgment and downslope transport of soil and rock under the direct application of gravitational stress.

Mycorrhizal fungi – Fungi that form a symbiotic relationship with the roots of certain plants, receiving energy and nutrients from the plant and, in some cases at least, providing the plant with improved access to water and some nutrients.

National Oceanic and Atmospheric Administration - Fisheries – The federal agency that is the listing authority for marine mammals, anadromous fish and other marine species under the federal Endangered Species Act.

Nesting, roosting, and foraging habitat – Habitat with the forest structure, sufficient area, and adequate food source to meet the needs of a nesting pair of spotted owls. In implementing the Habitat Conservation Plan conservation strategy for spotted owls, DNR Procedure 14-004-120 specifies the following minimum requirements for nesting, roosting, and foraging habitat:

- at least 50 percent of the total basal area in conifer trees greater than 3.5 inches diameter at breast height;
- a relative density of at least 50;
- no more than 280 trees per acre;
- at least 40 trees per acre that are at least 85 feet tall;
- at least 3 snags or cavity trees per acre that are at least 20 inches diameter at breast height and at least 16 feet tall; and
- 2,400 cubic feet per acre of down woody debris.

Nesting, roosting, and foraging management areas – Lands identified in the Habitat Conservation Plan that are managed to (1) provide demographic support and (2) contribute to maintaining species distribution for the spotted owl.

Off-base – A DNR classification for lands and timber resources not available for timber harvest.

Old-growth forest – A forested stand characterized by a complex community of living plants as well as abundant coarse woody debris, cavity trees, litter, and soil organic matter, supporting diverse and interconnected communities of vertebrates, invertebrates, fungi, and plants. Stands with these characteristics, a stand age greater than 250 years, and no history of silvicultural management are called "old natural forests."

Old forest – As used in this document, areas that meet the criteria of the fully functional or old natural forest stand development stages.

Perennial stream – Defined in the Washington Forest Practices Board emergency rules, effective March 20, 2000, Type 4 waters as follows: all segments of natural waters within



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the bankfull width of defined channels that are not Type 1, 2 or 3 waters and which are perennial waters of non-fish-bearing streams. Perennial waters means waters downstream from a perennial initiation point.

Periphyton – Organisms that grow on underwater surfaces; periphyton include algae, bacteria, fungi, protozoa, and other organisms.

Physiographic province – A region having similar geologic structure and climate, and which had a consistent geomorphic history; a region whose pattern of relief features or landforms differs significantly from that of adjacent regions.

Precommercial thinning – Cutting trees at an immature age to allow for better growth of the remaining trees; may include removal of excess and/or diseased trees 10 to 35 years old.

Rain-on-snow zone – Area, generally defined as an elevation zone, where it is common for snowpacks to be partially or completely melted during rainstorms.

Recovery plan – A plan developed by a government agency, that if implemented will result in the recovery of a threatened or endangered species to the extent that the species can be removed from threatened or endangered status.

Regeneration harvest with green-tree and legacy tree retention – A harvest method in which live trees are left within regeneration harvest units to provide habitat after harvest.

Relative density – A ratio based on a sampling of tree measurements that represents the amount of growing space occupied by trees within a forest stand.

Revised Code of Washington – A revised, consolidated, and codified form and arrangement of all the laws of the state of a general and permanent nature.

Riparian area – Areas of land directly influenced by water or that influence water. Riparian areas usually have visible vegetative or physical characteristics reflecting the influence of water. Riversides and lake shores are typical riparian areas.

Riparian buffer – As defined for the Habitat Conservation Plan's westside planning units, the inner buffer of the riparian management zone that serves to protect salmonid habitat. See also riparian management zone.

Riparian ecosystem – In DNR's Habitat Conservation Plan, the area of direct interaction between terrestrial and aquatic environments.

Riparian Management Zone – Riparian Management Zone is a specified area around streams of Type 1 - 4 where specific measures are taken to protect the stream and its functions. The Riparian Management Zone consists of the stream, the adjacent riparian buffer and, where appropriate, a wind buffer to protect the integrity of the managed riparian buffer. The riparian buffer has been designed to maintain/restore riparian processes that influence the quality of salmonid habitat and to contribute to the conservation of other aquatic and riparian obligate species. Consideration was given to water temperature, stream bank integrity, sediment load, detrital nutrient load, and large



woody debris. The buffers vary according to stream type, location of the flood plain, windthrow, and stream width. Riparian Management Zone buffers are described in DNR Procedures 14-004-150 and 14-004-160.

Riparian Management Zone Core Zone – For western Washington, the 50-foot buffer measured horizontally outside of the bankfull width or the channel migration zone, whichever is greater, of a Type 1, 2 or 3 water (see Washington Administrative Code 222-30-021).

Riparian Management Zone Inner Zone – For western Washington, the area measured horizontally from the outside boundary of the core zone of a Type 1, 2, or 3 water to the outer limit of the inner zone. The outer limit of the inner zone is determined based on the width of the affected water, site class, and the management action chosen for timber harvest within the inner zone (see Washington Administrative Code 222-30-021).

Riparian Management Zone Outer Zone – The area measured horizontally between the outer extent of the inner zone and the Riparian Management Zone width as specified in the Riparian Management Zone definition above. Width is measured from the bankfull width or the channel migration zone, whichever is greater (see Washington Administrative Code 222-30-021 and 22-30-022).

Riparian zone – A narrow band of moist soils and distinctive vegetation along the banks of lakes and streams; in the Habitat Conservation Plan, the portion of the riparian ecosystem between the aquatic zone and the direct influence zone (uplands).

Runoff – The amount of rain water directly leaving an area in surface drainage, as opposed to the amount that seeps out as groundwater.

Salmonid – Fish species belonging to the family Salmonidae, including trout, salmon, char, and whitefish species.

Scoping – Determining the range of proposed actions, alternatives, and impacts to be discussed in an Environmental Impact Statement (Washington Administrative Code 197-11-793).

Sensitive species – A state designation. State sensitive species are species native to Washington that are vulnerable or declining, and are likely to become endangered or threatened in a significant portion of their ranges within the state without cooperative management or the removal of threats.

Short-term deferrals – Areas deferred from timber harvest during a portion of the next decade.

Silviculture – The theory and practice of controlling the establishment, composition, growth, and quality of forest stands in order to achieve management objectives.

Site class – A grouping of site indices that are used to determine the 100-year site class. The site index from the state soil survey, corresponding site class.

For Western Washington:



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Site class	50-year site index range (state soil survey)
I	137+
II	119-136
III	97-118
IV	76-96
V	≤75

Site index – A measure of forest productivity, expressed as the height of the dominant trees in a stand at an index age.

Site potential tree height – The height represented by the approximate mid-point of one of five site classes projected to a stand age of 100 years, as in the following table:

Region	Site Class	Site Potential Tree Height
Westside	I	200
	II	170
	III	140
	IV	110
	V	90

SPTH numbers in this table were derived from Douglas-fir stands.

Skid trail – A path along which logs are dragged over the land surface to a landing.

Snag – A dead tree that is still standing.

Stand – A group of trees that possess sufficient uniformity in composition, structure, age, spatial arrangement, or condition to distinguish them from adjacent groups.

Stand development stage – A representation of the structural conditions and developmental processes occurring within a forest stand. These development stages are based on the Washington Forest Landscape Management Project by Carey et al. (1996). That project employed a generalized classification that focuses on the ecological processes underlying the stages of forest development. Physical characteristics associated with stand development stages serve as indicators of these processes at work. Compare to forest structure classes. Both are described in greater detail in Appendix B.

The following table provides a summary of the stand development stages used in this Draft Environmental Impact Statement.

Stand Development Stage	Description
Ecosystem Initiation	Establishment of a new forest ecosystem following death or removal of overstory trees by wildfire, windstorm, insects, disease, or timber harvesting. Varying rates of retention of biological legacies (e.g., understory trees, large snags and down wood, soil microbes and invertebrates, fungi and non-vascular plants, etc.) influence the rate at which the stand develops into a fully functional forest in the future.

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Sapling Exclusion	Trees fully occupy the site (canopy cover exceeds 70 percent) and start to compete with one another for light, water, nutrients, and space. Most other vegetation is precluded and many trees become suppressed and die.
Pole Exclusion	The high density and uniform size of relatively short trees creates dark understory conditions and low levels of biological diversity. Suppression mortality of smaller trees leads to the creation of small snags.
Large Tree Exclusion	Continued suppression mortality reduces tree density and creates small openings where scattered pockets of ground vegetation become established. Small snags created during the Pole Exclusion stage fall, creating small down logs.
Understory Reinitiation	Achievement of dominance by some trees (and death of others) leads to the development of canopy gaps where understory plants become established. Stands that arrive at this condition through natural development typically have greater than 70 percent canopy coverage overall; thinning produces stands with 10-70 percent canopy cover.
Developed Understory	Understory of herbs, ferns, shrubs, and trees develops after death or removal of some dominant trees; time has been insufficient for full diversification of the plant community.
Botanically Diverse	Organization and structure of the living plant community becomes complex with time, but lack of coarse woody debris and other biological legacies precludes a full, complex biotic community.
Niche Diversification	The biotic community becomes complex as coarse woody debris, cavity trees, litter, soil organic matter, and biological diversity increase; diverse trophic pathways develop; wildlife foraging needs are met.
Fully Functional	Additional development provides habitat elements of large size and interactions that provide for the life requirements of diverse vertebrates, invertebrates, fungi, and plants.
Old Natural Forests	Structural characteristics are the same as those of Fully Functional forest, but age (greater than 250 years), natural origin, and lack of management history may contribute attributes and organisms that do not exist in younger stands that developed through other processes (e.g., silvicultural management).

State Environmental Policy Act – This law (Chapter 43.21C RCW) is the basic state statute for protection of the environment. SEPA requires all state agencies to consider and analyze all significant environmental impacts of any action proposed by those agencies; to inform and involve the public in the agencies’ decision-making processes; and to consider the environmental impacts in the agencies’ decision-making processes.

Structurally complex forest – Forests containing a large tree component (generally 30 inches or greater), multiple canopies, and varying degrees of biological legacies such as coarse woody debris, cavity trees, litter, and soil organic matter. Consists of the developed understory, botanically diverse, niche diversification, fully functional, and old natural forest stand development stages.

Succession – A series of changes by which one group of organisms succeeds another group in an ecosystem; a series of developmental stages in a community.

Suppression mortality – Competition between trees for limited sunlight, nutrients, water, and space, leading to the death of some trees within a stand.



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Talus – A deposit of rock rubble, ranging in size from 1 inch to 6.5 feet; derived from and lying at the base of a cliff or very steep, rocky slope.

Threatened and endangered species – Formal classifications of species. Federal designations are made by the U.S. Fish and Wildlife Service or National Oceanic and Atmospheric Administration – Fisheries Service; state of Washington designations are made by the Washington Fish and Wildlife Commission (RCW 77.08.010).

Trust land – Lands held in trust and managed by the DNR for the benefit of a trust beneficiary.

Turbidity – The relative lack of clarity of water, which may be affected by material in suspension.

Uncommon habitat – A category of forested and nonforested habitats including cliffs, caves, talus slopes, oak woodlands, and very large, old trees. A habitat description for DNR-managed lands.

Understory canopy – Forest undergrowth; the lowest canopy layer of trees and woody species. See also canopy and overstory canopy.

United States Fish and Wildlife Service – The U.S. Fish and Wildlife Service, which is the federal agency that is the listing authority for species other than marine mammals and anadromous fish under the federal Endangered Species Act.

Washington Administrative Code – The compilation of all current, permanent rules of state agencies.

Water quality classification – Washington State Department of Ecology water quality standards; specifications are given in Washington Administrative Code 173-201-045. Class AA water is “extraordinary,” Class A water is “excellent,” Class B water is “good,” and so on.

Water typing system – A simplified explanation of Washington’s classifications of water types appears here. (For the complete classification system, see Washington Administrative Code 222-16-030.)

Type 1: All waters, within their ordinary high-water mark, as inventoried as shorelines of the state under the Shoreline Management Act.

Type 2: Segments of natural waters that are not Type 1 and have a high use and are important from a water quality standpoint for domestic water supplies; public recreation; fish spawning, rearing, or migration or wildlife use; are highly significant to protect water quality.

Type 3: Segments of natural waters that are not Type 1 or 2 and are moderately important from a water quality standpoint for: domestic use; public recreation; fish spawning, rearing, or migration or wildlife uses; or have moderate value to protect water quality.



Type 4: Segments of natural waters that are not Type 1, 2, or 3, and for the purpose of protecting water quality downstream are classified as Type 4 Water upstream until the channel width becomes less than two feet in width between the ordinary high-water marks. These may be perennial or intermittent.

Type 5: Natural waters that are not Type 1, 2, 3, or 4; including streams with or without well-defined channels, areas of perennial or intermittent seepage, ponds, natural sinks and drainage ways having short periods of spring or storm runoff.

Type 9: Streams of unknown classification.

Watershed – The drainage basin contributing water, organic matter, dissolved nutrients, and sediments to a stream or lake. The term “watershed” is used in this analysis to denote Washington DNR Watershed Administrative Units per March 2002 delineations.

Watershed Administrative Unit – In Washington, the hydrologic area unit used for watershed analysis. See Washington Administrative Code 222-22-020 for more information.

Watershed analysis – A systematic procedure for characterizing watershed and ecological processes to meet specific management objectives; provides a basis for resource management planning. In Washington, the assessment of a Washington Administrative Unit completed under forest practices rules (Chapter 222-22 Washington Administrative Code).

Western Washington – The geographic area of Washington west of the Cascade crest.

Wetland – An area that is inundated or saturated by surface or ground water at a frequency and duration sufficient to support (and under normal circumstances does support) a prevalence of vegetation typically adapted for life in saturated soil conditions; includes swamps, bogs, fens, and similar areas.

Wetland Management Zone – A specified area around wetlands greater than 0.25 acres, where specific measures are taken to protect the wetland and its hydrologic, biogeochemical, and habitat functions. The Wetland Management Zone consists of the wetland and the adjacent buffer. The buffers, described in DNR Procedures 14-004-150 and 14-004-160, are:

Westside Planning Units (not including Olympic Experimental State Forest)

- Wetlands 0.25 to 1 acre: 100 feet
- Wetlands greater than 1 acre: The larger of 100 feet or greater than or equal to site potential tree height

Olympic Experimental State Forest

- Wetlands 0.25 to 5 acres: two-thirds of the site potential tree height
- Wetlands larger than 5 acres: site potential tree height

Wetland typing system – A simplified explanation of Washington’s classifications of wetland types appears here. For the complete classification system, see Washington Administrative Code 222-16-035.



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Nonforested wetland – Any wetland or portion thereof that has (or if the trees were mature would have) a crown closure of less than 30 percent. There are two types of nonforested wetlands. A Type A Wetland is: (1) greater than 0.5 acre in size; (2) associated with at least 0.5 acre of ponded or standing open water; or (3) are bogs and fens greater than 0.25 acre. All other nonforested wetlands greater than 0.25 acre are Type B wetlands.

Forested wetland – Any wetland or portion thereof that has (or if the trees were mature would have) a crown closure of 30 percent or more.

Wind buffer – As defined for the Habitat Conservation Plan's westside planning units, the outer buffer of the riparian management zone that maintains the ecological integrity of the riparian buffer by reducing windthrow.

Windthrow– Trees blown down by wind; also called blowdown.

Yarding – Transporting logs from the point of felling to a collecting point or landing.

Yarding corridor – A narrow, linear path through a stand (especially with a riparian management zone) to allow suspended cables necessary to support cable yarding methods, and suspended or partially suspended logs to be transported through these areas by cable yarding methods.